

GitOps Using ArgoCD

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Course Number: WA3252

Duration: 1 days

Overview

Course Description

GitOps is a set of principles that help you automate deployment of applications to a Kubernetes cluster. ArgoCD is an open source tool that lets you implement GitOps in your organization. This course starts by describing what GitOps is, and what advantages it has over traditional Continuous Deployment (CD) approaches. It then proceeds to teach you how you can use ArgoCD to implement GitOps.

Skills Gained

- The benefits of GitOps
- How to set up ArgoCD in a Kubernetes cluster
- How to deploy an application using ArgoCD
- How to administer ArgoCD using the command line tool and in the declarative way

Who Can Benefit

DevOps Administrators and Software Developers

Prerequisites

Prior knowledge of deploying applications to Kubernetes is required.

Audience

Course Details

Introduction to GitOps

- What is GitOps?
- Benefits of GitOps
- Common GitOps Tools
- Typical GitOps Workflow

Introduction to ArgoCD

- What is ArgoCD?
- Basic Workflow
- Advantage of ArgoCD
- Installing ArgoCD
- Access The Argo CD API Server
- Log into the Web UI

Deploy an Application Using ArgoCD

- Basic Steps
- Storing the Deployment YAML Files
- Define a Git Repo in ArgoCD
- Create an Application in ArgoCD
- Synchronization of an Application
- Application Health Monitoring

Application Synchronization

- Synchronization Basics
- Enable Automatic Synchronization
- View Synchronization History
- Disaster Recovery
- Self Healing
- Pruning Resources
- Undeploy an Application
- Setup Webhook

Declarative and CLI Based Administration

- Alternative ArgoCD Management Interfaces
- ArgoCD CLI
- Logging in Using the CLI
- Create a Git Repo Using the CLI
- Manage an Application using CLI
- Undeploy an Application using CLI
- Declarative Management
- Define a Git Repo Declaratively
- Create an Application Declaratively

Lab Exercises

- Lab 1. Prepare for Deploying an Application to Kubernetes
- Lab 2. Deploy an Application
- Lab 3. In a Traditional Way
- Lab 4. Install
- Lab 5. and Configure
- Lab 6. ArgoCD
- Lab 7. Deploy an Application Using ArgoCD
- Lab 8. Advanced Synchronization Options
- Lab 9. Using the ArgoCD CLI Command
- Lab 10. Declarative Administration

Free ArgoCD Tutorials from Ascendient Learning:

- Introduction to ArgoCD
- Deploy an Application Using ArgoCD